Amendments To The Claims

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously Presented) A process for reducing corrosion in an MTO effluent processing system, the process comprising the steps of:

(a) directing a product stream from an MTO reactor to a quench unit through a quench unit inlet;

(b) contacting the product stream with a quench medium in the quench unit under conditions effective to form a light product fraction containing light olefins, a heavy product fraction containing condensed components, and a condensed pumparound stream;

(c) adding a neutralization agent to the condensed pumparound stream to form the quench medium, wherein the quench medium has a pH greater than the pH of the condensed pumparound stream; and

(d) injecting the quench medium into the quench unit at an injection point oriented higher on the quench unit than the quench unit inlet;

(e) compressing the light product fraction to form a compressed product fraction; directing the compressed product fraction to a C3- separation zone and forming a C3- overhead stream and a C4+ bottoms stream; and

(f) contacting at least a portion of the C3- overhead stream with caustic in a caustic wash unit and forming a caustic unit overhead stream and a caustic unit bottoms stream, wherein the caustic unit overhead stream contains a majority of the light olefins that were present in the light product fraction, and wherein the caustic unit bottoms stream contains at least partially spent caustic.

2. (Original) The process of claim 1, wherein the neutralization agent is selected from the group consisting of: caustic, ammonium hydroxide, potassium hydroxide, ammonia and amines.

3. (Original) The process of claim 1, wherein the quench medium has a pH of at least 6.0.

4. (Original) The process of claim 3, wherein the quench medium has a pH of at least 7.0.

5. (Previously Presented) The process of claim 1, wherein the process further comprises the step of:

monitoring the pH of the condensed pumparound stream.

6. (Previously Presented) The process of claim 5, wherein step (c) is responsive to a determination that the pH of the condensed pumparound stream is approaching acidic conditions.

7-8. (Canceled)

9. (Previously Presented) The process of claim 1, wherein the neutralization agent comprises the at least partially spent caustic.

10. (Previously Presented) The process of claim 1, wherein the process further comprises the step of:

cooling the condensed pumparound stream.

11. (Previously Presented) The process of claim 1, wherein the process further comprises the step of:

cooling the quench medium.

12. (Original) The process of claim 1, wherein the conditions in step (b) are effective to form a single condensate stream, and wherein the single condensate stream is separated into the heavy product fraction and the condensed pumparound stream.

13. (Original) The process of claim 1, wherein the condensed pumparound stream is a bottoms stream.

14. (Original) The process of claim 1, wherein the condensed pumparound stream is a side draw stream.

15. (Original) The process of claim 14, wherein the heavy product fraction is a bottoms stream.

16. (Previously Presented) The process of claim 1, wherein the heavy product fraction contains methanol, the process further comprising the steps of:

directing the heavy product fraction to a condensate removal unit; and

subjecting the heavy product fraction in the condensate removal unit to conditions effective to separate the heavy product fraction into an overhead oxygenate stream and a water-containing stream, wherein the overhead oxygenate stream contains a majority of the methanol that was present in the heavy product fraction, and wherein the water-containing stream contains a majority of the water that was present in the heavy hydrocarbon fraction.

17-112. (Canceled)